

USSR/Electricity

Nov 48

Electric Power
Diesel Engines

"Review of the Book, 'Diesel Power Plants,' by
G. I. Rossiyevskiy, Candidate in Technical Sciences,"
V. B. Pakshver, Cand Tech Sci, 2 pp

"Za Ekon Top" No 11

Absence of adequate literature on subject makes
book valuable, but too much space is given to
accessory equipment. Problems of fuel economy
are well but unequally covered. Among other defects,
calculation of boiler-utilizers is too extensive,

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while too little attention is paid to using
the heat of cooling water. However, book merits
reprinting.

ROSSIYEVSKIY, G. I.

57/49133

USSR/Engineering

Fuel, Conservation
Efficiency, Industrial

Dec 48

"Electric-Power Utilization of Low-Potential Secondary Power Resources of Industry Through Closed Systems," G. I. Rosslyevskiy, Power Eng Inst Imeni G. M. Krzhizhnevskiy, 18 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 12

Discusses closed system for power utilization of low-potential secondary sources of industrial production. System may be applied to the most spread-out sources, particularly: (1) heat issuing from production-machine surfaces which are being cooled (open-hearth

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furnaces, blast furnaces, internal-combustion motors, etc.), (2) heat released in the process of condensation and cooling of the piece under treatment in a number of technological processes (petroleum refineries, chemical industries, etc.), and (3) heat going into the atmosphere with stack gases, which have temperatures of 200-250°, etc.

24/49128

1303. UTILISATION OF HEAT FROM COOLING SYSTEMS OF PRODUCTION
PLANTS FOR GENERATION OF ELECTRICITY. Rossievskii, G. I. (Za
Ekonomiyu Topliva (Fuel Econ.), 1949, (5), 14-22).

Following research work at the Power Institute of the Academy of Science of the U.S.S.R., the author discusses the subject theoretically, with particular reference to the use of waste heat from iron and steel works. Although direct use of this heat will be possible in some cases, its use for generating electricity is much more generally applicable. The next stage in development should be experiments on an industrial scale, using water as the heat-carrying medium and turbo-alternators for generating electricity. Special low-pressure wet-steam turbines will have to be developed. They may need to receive steam from the cooling systems of different units in an iron and steel works at different stages and at different pressures. Further work is needed on the use of high boiling-point liquids, instead of water, as the heat carrying medium. (L).

ASME-STEEL METALLURGICAL LITERATURE CLASSIFICATION

CIA-RDP86-00513R0014454

KL 251, 44 - 11, 4 G.I.
VEYTS, V.I.; KOSSIYEVSKIY, G.I., kandidat tekhnicheskikh nauk.

Use of electric power in combined heating and cooling systems
("heat pumps"). Gor.khoz.Mosk. 24 no.4:11-15 Ap '50. (MLRA 7:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Veyts).
(Moscow--Heat pumps) (Heat pumps--Moscow)

ROSSIYEVSKIY, G. I.

1/5135

USSR/Engineering - Heating
Power

11 Apr 50

"Power Characteristics of Processes That Involve the
Cooling of Products and Wastes of Industry," G. I.
Rossiyevskiy

"Dok Ak Nauk SSSR" Vol LXXI, No 5, pp 891-894

Describes elec power schemes that utilize phys heat
from industrial products and wastes by means of closed
circulating heat-carrier, heat-exchangers, evapora-
tors, etc. Submitted 10 Feb 50 by Acad M. V. Kirpi-
chev.

FDD

176T35

1. ROSSYEVSKIY, G. I.
2. USSR (600)
4. Steam Turbines
7. Utilization of secondary power resources of industry in the design of turbines with intermittent steam bleeding and condensation, Prom. energ., 10, No. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

ROSSIYEVSKIY, R.I.

ROSSIYEVSKIY, G.I.; GARTUNG, S.V., redaktor; LARIONOV, G.Ye., tekhnicheskii redaktor.

[Internal combustion engine electric power plants] Elektricheskie stantsii s dvigateliami vnutrennego sgoraniia. Moskva, Gos. energ. izd-vo, 1954. 198 p. (MLRA 7:7)
(Electric power plants) (Gas and oil engines)

ROSSIYEVSKIY, G. I.

ROSSIYEVSKIY, G. I. -- "Basic Problems in the Theory of Using Secondary Power Resources of Low and Medium Potential for the Development of Electric Power." Min Higher Education USSR. Moscow Order of Lenin Power Inst imeni V. M. Molotov. Moscow, 1955. (Dissertation for the Degree of Doctor of Technical Sciences.)

SO: Knizhnaya Letopis', No 5, Moscow, Feb 1956

Name: ROSSIYEVSKIY, Grigoriy Izraylovich

Dissertation: Basic Problems of the Theory of Utilization of
Secondary Energy Resources of Low and Medium
Potential for the Production of Electric Power

Degree: Doc Tech Sci

Affiliation: Moscow Engineering-Economics Inst imeni Ordzhoni-
kidze

Defense Date, Place: 24 Feb 56, Council of Moscow Order of Lenin Power
Engineering Inst imeni Molotov

Certification Date: 17 Nov 56

Source: BMVO 6/57

BRNESHCHICH, I.I., kandidat tekhnicheskikh nauk; BOGIN, N.M., kandidat tekhnicheskikh nauk; BYKOV, Ye.I., inzhener; VLASOV, I.I., kandidat tekhnicheskikh nauk; GRITSHEVSKIY, M.Ye., inzhener; GRUBER, L.O., inzhener; GURVICH, V.G., inzhener; DAVYDOV, V.H., inzhener; YER-SHOV, I.M., kandidat tekhnicheskikh nauk; ZASORIN, S.N., kandidat tekhnicheskikh nauk; IVANOV, I.I., kandidat tekhnicheskikh nauk; KRAUKLIS, A.A., inzhener; KROTOV, L.B., inzhener; LAPIN, V.B., inzhener; LASTOVSKIY, V.P., dotsent; LATUNIN, N.I., inzhener; MARKVARDT, K.G., professor, doktor tekhnicheskikh nauk; MAKHAYLOV, M.I., professor, doktor tekhnicheskikh nauk; NIKANOROV, V.A., inzhener; OSKOLKOV, K.N., inzhener; OKHOSHIN, L.I., inzhener; PARFENOV, K.A., dotsent, kandidat tekhnicheskikh nauk; PERTSOVSKIY, L.M., inzhener; POPOV, I.P., inzhener; PORSHNEV, B.G., inzhener; RATNER, M.P., inzhener; ROSSIYEVSKIY, G.I., dotsent, kandidat tekhnicheskikh nauk; RYKOV, I.I., kandidat tekhnicheskikh nauk; RYSHKOVSKIY, I.Ya., dotsent, kandidat tekhnicheskikh nauk; RYABKOV, A.Ya., professor [deceased]; TAGER, S.A., kandidat tekhnicheskikh nauk; KHAZEN, M.M., professor, doktor tekhnicheskikh nauk; CHERNYSHEV, M.A., doktor tekhnicheskikh nauk; EBIN, L.Ye., professor, doktor tekhnicheskikh nauk; YUGZNEV, B.N., dotsent; AKSENOV, I.Ya., dotsent, kandidat tekhnicheskikh nauk; ARKANGEL'SKIY, A.S., inzhener; BARTENEV, P.V., professor, doktor tekhnicheskikh nauk; BERNGARD, K.A., kandidat tekhnicheskikh nauk; BOROVOY, N.Ye., dotsent, kandidat tekhnicheskikh nauk; BOGDANOV, I.A., inzhener; BOGDANOV, N.K., kandidat tekhnicheskikh nauk; VINNIGERNEO, H.G., dotsent, kandidat ekonomicheskikh nauk;

(Continued on next card)

BENESHEVICH, I.I.----(continued) Card 2.

VASIL'YEV, V.F.; GONCHAROV, H.G., inzhener; DERIBAS, A.T., inzhener;
 DOBROSELSKIY, K.M., dotsent, kandidat tekhnicheskikh nauk; DLUGACH,
 B.A., kandidat tekhnicheskikh nauk; YEFIMOV, G.P., kandidat tekhnicheskikh nauk;
 ZEMBLINOV, S.V., professor, doktor tekhnicheskikh nauk; ZABELLO, M.L., kandidat tekhnicheskikh nauk; IL'IN, K.P., kandidat tekhnicheskikh nauk; KARZETNIKOV, A.D., kandidat tekhnicheskikh nauk; KAPLUN, F.Sh., inzhener; KANSHIN, M.D.; KOCHNEV, P.P., professor, doktor tekhnicheskikh nauk; KOGAN, L.A., kandidat tekhnicheskikh nauk; KUGHURIN, S.F., inzhener; LEVASHOV, A.D., inzhener; MAKSIMOVICH, B.M., dotsent, kandidat tekhnicheskikh nauk; MARTYNOV, M.S., inzhener; MEDNOL, O.M., inzhener; NIKITIN, V.D., professor, kandidat tekhnicheskikh nauk; PADNYA, V.A., inzhener; PANTELEYEV, P.I., kandidat tekhnicheskikh nauk; PYTROV, A.P., professor, doktor tekhnicheskikh nauk; POVOROZHENKO, V.V., professor, doktor tekhnicheskikh nauk; PISKAREV, I.I., dotsent, kandidat tekhnicheskikh nauk; SERGEYEV, Ye.S., kandidat tekhnicheskikh nauk; SIMONOV, K.S., kandidat tekhnicheskikh nauk; SIMANOVSKIY, M.A., inzhener; SUYAZOV, I.G., inzhener; TALDAYEV, F.Ya., inzhener; TIKHONOV, K.K., kandidat tekhnicheskikh nauk; USHAKOV, N.Ya., inzhener; USEVSKIY, V.K., inzhener; FEL'DMAN, B.D., kandidat tekhnicheskikh nauk; FERAPONTOV, G.V., inzhener; KHOKHLOV, L.P., inzhener; CHERNOCHORDIK, G.I., professor, doktor tekhnicheskikh nauk; SHAMAYEV, M.F., inzhener; SHAFIRKIN, B.I., inzhener; YAKUSHIN, S.I., inzhener; GRANOVSKIY, P.G., redaktor; TISHCHENKO, A.I., redaktor; ISAYEV, I.P., dotsent, kandidat tekhnicheskikh nauk, redaktor; KLIMOV, V.F., dotsent kandidat tekhnicheskikh

(Continued on next card)

BENESHEVICH, I.I.--- (continued) Card 3.

nauk, redaktor; MARKOV, M.V., inzhener, redaktor; KALININ, V.K.,
inzhener, redaktor; STEPANOV, V.N., professor, redaktor; SIDOROV, N.I.,
inzhener, redaktor; GERONIMUS, B.Ye., kandidat tekhnicheskikh nauk,
redaktor; ROBBL', R.I., otvetstvennyy redaktor

[Technical reference manual for railroad engineers] Tekhnicheskii
spravochnik zheleznodorozhnika. Moskva, Gos. transp.zhel-dor. izd-vo.
Vol.10. [Electric power supply for railroads] Energosnabzhenie zhelez-
nykh dorog. Otv.red. toma K.G.Markvardt. 1956. 1080 p. Vol.13.
[Operation of railroads] Eksploatatsiia zheleznykh dorog. Otv. red.
toma R.I.Robbl'. 1956. 739 p. (MLRA 10:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Petrov)
(Electric railroads) (Railroads---Management)

b24

AUTHORS: Rossiyeveskiy, G.I. (Dr. Tech. Sci.) and Monastyrskaya, A.R.
(Engineer).

TITLE: Questions of the development of high capacity industrial heat and electric power stations. (Voprosy razvitiya moshchnykh promyshlennyykh TETs).

PERIODICAL: "Teploenergetika" (Thermal Power), Vol.4, No.5, May, 1957, pp. 6 - 10 (U.S.S.R.)

ABSTRACT: In recent years much attention has been paid to investigating urban heat supply schemes and urban heat and electric power stations whilst similar industrial stations have received insufficient attention. Industrial heat and electric power stations should only be designed after analysis of the development of power as well as heat supply and this is not always done. Many new industrial heat and electric power stations will be built in places where fuel is cheap. Under these conditions it will be advisable to use the largest possible sets with high steam conditions and to associate the operation of the stations as closely as possible with industrial power requirements. In addition to the factors promoting an increase in the unit powers of industrial heat and electric power stations there are opposite tendencies favouring a reduction in thermal loads. Increase in urban heating loads is a proper reflection of improved living conditions but reduction of industrial heat consumption is also good practice. This results from

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Questions of the development of high capacity industrial heat and electric power stations. (Cont.)

the development of regenerative heating methods in industrial production and increased use of electric power to replace steam drives of various kinds. This applies particularly to oil refineries where the largest industrial heat and electric power stations are found.

With an equal total electric load the number of turbines in an industrial heat and electric power station will generally be greater than in a condensing power station or urban heat and electric power station. The principal size of set used in industrial stations will be 50 MW, sets of 25 MW will be widely used and there will be a few sets of 100 MW.

In increasing the steam conditions in industrial heat and electric power stations particular attention should be paid to regenerative feed water heating. In order to take this factor into account equations are derived for turbines with two controlled pass-outs for different initial steam conditions, in addition to steam tapplings for regeneration. Data are tabulated for a 50 MW turbine with industrial and heat-supply pass-outs in the ratio of 1.5 to 1. Similar data are tabulated for a 50 MW back-pressure turbine. It is shown that as the steam conditions are increased for a constant thermal load the power of industrial heat and electric power stations

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Questions of the development of high capacity industrial heat and electric power stations. (Cont.)

should increase relatively more than that of urban ones. The use of regenerative feed water heating influences this relative increase of output and results to illustrate this are tabulated for a back-pressure turbine with several values of steam pressure at the exhaust with and without regeneration. Similar data are tabulated for turbines with industrial and heat supply (high and low pressure) pass-outs in the ratio of 1.5 to 1 and also for turbines with only a heat-supply pass-out.

A formula is given for the fuel economy resulting from the combined generation of electrical and thermal energy, and it is shown how increasing steam conditions in the condensing stations that would be replaced, with constant steam conditions in the combined station, reduces the energy efficiency of combined heat supply. Values of this reduction are tabulated for back-pressure turbines with different steam conditions. The data quoted indicate the need for particular care in considering the advisability of constructing low-power heat and electric power stations with an initial steam pressure of 35 atms in large power systems consisting of condensing stations with high and super-high steam conditions. Preliminary calculations show that from the energy standpoint it

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Questions of the development of high capacity industrial heat and electric power stations. (Cont.)

would be quite acceptable to construct turbines with outputs of 25 MW and more with initial steam conditions of 130 atms and 535°C, and 50 MW and more with initial steam conditions of 220 atms and 600°C. The advisability of constructing heat supply turbines of 25 MW and more for high steam conditions is discussed.

In addition to using larger turbines and higher steam conditions other factors that increase the effectiveness of combined heat and power supply to industry include: the use of back-pressure turbines to cover industrial thermal loads; the use of a high degree of regenerative feed-water heating; using the lowest possible temperature and pressure of pass-out steam, developing if necessary special turbines to suit different industrial steam pressures; improved combination of the thermal circuit of the industrial station with the general picture of power supply to the industrial enterprise, using in particular secondary power resources to produce some process steam. No figures, no literature references.

Card 4/4

ROSSIYEVSKIY, G.I., doktor tekhn. nauk

Economic efficiency of producing heat in large electric power systems.
Elek.sta. 29 no.6:20-26 Je '58. (MIRA 11:9)
(Heat engineering)

L 34857-66 JKT

ACC NR: AP6014075

SOURCE CODE: UR/0294/66/004/002/0267/0273

AUTHOR: Kirillin, V. A.; Rossiyevskiy, G. I.; Styrikovich, M. A.;
Sheyndlin, A. Ye.

38
B

ORG: Scientific Research Institute of High Temperatures (Nauchno-
issledovatel'skiy 'institut vysokikh temperatur); Moscow Engineering-Economics
Institute im. S. Ordzhonikidze (Moskovskiy inzhenerno-ekonomicheskoy institut)

TITLE: Prospective efficiency of electric power stations with high-capacity open-
type MHD generators [Reported at the Royal Society meeting of 4 Nov 65, England]

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 2, 1966, 267-273

TOPIC TAGS: MHD generator, electric power plant

ABSTRACT: The results are reported of an estimation of the thermal efficiency
of MHD power plants; 500-Mw generators and high-temperature heating of

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UDC: 621.313.12:5384

L 34857-66

ACC NR: AP6014075

ordinary or oxygen-enriched air are assumed. The gas temperatures were assumed: before the channel: 2500, 2600, 2700C; after the channel: 2250, 2100C. Initial steam parameters for turbines, 240 atm, 580C. These conclusions are offered: (1) With ordinary-air preheating to 1500—2000C, the power-plant efficiency could reach 50—60% which considerably exceeds that of any other type of power plant; (2) The most important problem for materialization of such power plants is the constructing of magnetic systems with an induction of 4—6 web/m²; (3) Methods are needed for obtaining high temperatures of the combustion products with limited air preheating. The flue loss of the ionizing agent (K_2CO_3) can appreciably offset the MHD-plant savings if the fuel is cheap; hence, the MHD plants seem to be promising for the areas of high- or medium-price fuels. Orig. art. has: 3 figures, 2 formulas, and 2 tables.

SUB CODE: 10 / SUBM DATE: 01Dec65

Card 2/2

L 2968-66 EWT(d)/ENP(k)/EMP(1)
ACCESSION NR: AP5026355

UR/0105/64/000/009/0091/0091

AUTHOR: Bel'kind, L. D.; Venikov, V. A.; Glazunov, A. A.; Grudinskiy, P. G.;
Zhadin, K. P.; Zhebrovskiy, S. P.; Lapitskiy, V. I.; Neklyudov, B. K.; Pavlenko, V. A.
Razovig, D. V.; Rossiyskiy, G. I.; Safonov, A. P.; Sokolov, N. I.; Soldatkina, L. A.
Tayts, A. A.; Ul'yanov, S. A.; Fedoseyov, A. M.; Khoyster, V. A.

TITLE: Professor B. A. Teleshev on this 70th birthday and the 45th anniversary
of his engineering, scientific, and teaching activity

SOURCE: Elektrichestvo, no. 9, 1964, 91

TOPIC TAGS: electric engineering personnel

ABSTRACT: Boris Arkad'yevich Teleshev was seventy years old 12 March 1964.
He graduated from the electromechanical department of the Petrograd Poly-
technic Institute in 1917 and gained the title Electrical Engineer in 1920.
In the Union of Electric Power Stations of the Moskovskiy rayon, Teleshev
was one of the founders of the first dispatcher service of the Moscow
Power System, the chief dispatcher of this system, the manager of the high-
voltage networks of the Moscow Union, the chief engineer in construction of
the Moscow high-voltage network and of the high-voltage networks of the

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ACCESSION NR: AP5026355

Moskovskiy rayon and the chief engineer in construction of the Bobrikovsk (now Novomoskovsk) hydroelectric station. In connection with the reorganization of construction in 1931, Teleshev was transferred to Energostroy, first as chief engineer of the Moscow division and then as deputy chief of the design administration of Energostroy (now Toploelektroproyekt). In 1934, Teleshev took the post of assistant director of the Scientific Section of the Power Engineering Institute imeni Krzhizhanovskiy of the Academy of Sciences USSR and worked as the immediate assistant to Academician G. M. Krzhizhanovskiy in directing the Institute until 1946. Starting in 1923, he did scientific research work first at the Moscow Institute of Mechanics im. Lomonosov and then at the Institute of National Economy im. Plekhanov. After the founding of the Moscow Power Engineering Institute in 1930, Teleshev transferred to that Institute and worked there until 1940. Here he was Lecturer of the Department of "Central Electric Stations" and a professor in the department. He received his professorship in 1933. He was Dean of the Electric Power Department of the Institute from 1932-1935. In 1940, Teleshev was made director of the Department of Electrical Engineering of the Moscow Institute of Fine Chemical Technology where he remained until 1955. In 1944 he took part in organizing the Power Engineer-

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ing Department of the Moscow Institute of Engineering Economics im. S. Ordzhonikidze. From 1946 to the present, Teleshev has been director of the Department of "Electric Stations and Substations" and there have been two printings of his textbook on a course in "General Electrical Engineering." Teleshev has acted in a consultative capacity in plans for a great number of electrical stations and networks. He participated in the Government Consultation on the Dneper hydroelectric station im. V. I. Lenin. He has been an active member of the Scientific and Technical Society of the Power Industry for more than 20 years. He was chairman of the Moscow board of the Society from 1944 to 1951. For his service to the Society, he has been made a permanent member. In 1950 he was elected deputy in the Moscow Council of Deputies of the Workers. He has been decorated with the Order of Lenin, the Order of the Red Banner of Labor and with medals.

Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00

NR REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: EE

JPRS

Beh
Card 5/3

BEL'KIND, L.D.; VENIKOV, V.A.; GLAZUNOV, A.A.; GRUDINSKIY, P.G.; ZHADIN, K.P.;
ZHEBROVSKIY, S.P.; LAPITSKIY, V.I.; HEKLYUDOV, B.K.; PAVLENKO, V.A.;
RAZEVIG, D.V.; ROSSIYEVSKIY, G.I.; SAFONOV, A.P.; SOKOLOV, N.I.;
SOLDATKINA, L.A.; TAYTS, A.A.; UL'YANOV, S.A.; FEDOSEYEV, A.M.;
KHEYSTER, V.V.

Boris Arkad'evich Teleshev; on his 70th birthday and the 45th
anniversary of his engineering and educational work. Elektri-
chestvo no.9:91 S '64. (MIRA 17:10)

ROSSIYEN, G.I., doktor tekhn.nauk; ARHRYAN, D.T., inzh.

Determination of the optimum value of the coefficient of central heating
for large central heating system turbines operating at superhigh steam
pressures. Elek. sta. 34 no.11:32-35 N '63. (MIRA 17:2)

ROSSIYEVSKIY, G.I., doktor tekhn. nauk; ARSHAKYAN, D.T., inzh.

Effect of climatic conditions on indices determining the power
efficiency of municipal central heating systems. Elek. sta. 35
no.11:21-25 N '64. (MIRA 18:1)

ROSSIYEVSKIY, G.I., doktor tekhn.nauk, prof.

Relationship between the initial steam parameters of heat and electric power plants and condensing electric power stations as one of the principal factors determining the efficiency of heating from central stations. Teploenergetika 10 no.6:77-80 Je '63. (MIRA 16:7)
(Heating from central stations)
(Electric power plants)

ROSSIYEVSKIY, G.I., doktor tekhn.nauk; MONASTYRSKAYA, A.R., kand.tekhn.nauk;
SHUBIN, Ye.P., inzh.

Features of the construction of large municipal thermal
electric power plants with supercritical steam parameters;
based on the experience of the city of Moscow. Elek. sta.
34 no.1:13-17 Ja '63. (MIRA 16:2)
(Electric power plants)

ROSSIYEVSKIY, G.I., doktor tekhn.nauk; MONASTYRSKAYA, A.R., kand.tekhn.nauk

Methodology for determining the relative efficiency of combined and separate electric power distribution networks. Elek. sta. 32 no.7: 27-33 J1 '61. (MIRA 14:10)

(Electric power plants) (Electric power distribution)

NITSKEVICH, Yevgeniy Arkad'yevich; MELENT'YEV, I.A., prof.; retsenzent; ,

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001445

G.V., inzh., retsenzent; SUSKIN, I.N., inzh., red.; KARELYANSKIY, V.V., kand.tekhn.nauk, red.; NEPOMNYASHCHIY, N.V., red.izd-va; ATTOPOVICH, M.K., tekhn.red.

[Full use of fuel in ferrous metallurgy] Ispol'zovanie topliva v chernoi metallurgii. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 622 p.

(MIRA 14:1)

(Metallurgical plants--Equipment and supplies)

(Fuel)

ROSSIYEVSKIY, G.I., doktor tekhn.nauk; MONASTYRSKAYA, A.R., kand.
tekhn.nauk; OSTROYSKIY, S.I., inzh.; SAGAYDAK, T.A., inzh.

Effectiveness of equipping power systems with industrial
power plants of low capacity using counterpressure turbines.
Teploenergetika 7 no.7:64-69 J1 '80. (MIRA 13:7)

1. Moskovskiy inzhernerno-ekonomicheskoy institut i
Energeticheskoy institut AN SSSR.
(Electric power plants) (Steam turbines)

Rossiyskiy, B.I.

8(6)

PLANE 1 BOOK INFORMATION

807/252

Avramenko, P.D., V.I. Veyts, B.A. Gurevich, V.I. Denisov, A.G. Zakharenko, B.A. Kabanov, I.S. Kolobov, B.N. Kravchenko, S.G. Kuznetsov, V.I. Labadov, A.G. Leont'yev, M.P. Mironov, A.G. Petrov, A.G. Smirnov, and B.I. Shvachkin

Osnoynyye voprosy planirovaniya yedynoy energeticheskoy sistemy SSSR (Basic Problems in Planning a Unified Power System for the USSR.) Moscow, Izdatvo AN SSSR, 1979. 174 p. Krata elip inserted. 2,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Energeticheskoy institut.

Eds.: S.M. Kravchenkovskiy, Academician and V.I. Veyts, Corresponding Member, USSR Academy of Sciences; Tech. Ed.: S.G. Markovich.

REMARKS: This book is intended for government planning circles, scientific research organizations and others interested in the electrification of the USSR.

CONCLUSION: The book examines the principal problems of a unified power system for the USSR as a basis for a program of government planning in that field. It is the result of several years of study conducted mainly at the Power Engineering Institute of the Academy of Sciences, USSR, in cooperation with power engineering institutes of the individual Soviet Republics, universities and learned societies, and in close cooperation with the Gosplan, USSR. These studies are concerned with basic problems of a scientific nature and problems of technical policy for the prospective development of a unified electric power system in the USSR. The problems outlined are applicable when the planned system reaches an output of 1000 billion kw-hr's which is scheduled for 1970. One of the results of the plan is that since it is possible to obtain higher installed capacities in a shorter time than at lower capital outlays by the construction of basic is now on building steam-turbine plants with simultaneous adoption in hydro-power developments, supplying the most economical ones or those which are the only or the main sources of power in a given region or are dictated by other needs, such as irrigation, river control, etc. Nuclear plants will play a steadily increasing role in the development of a unified power system. Several problems of a purely scientific and technical nature were prompted by the study of a unified system: Problems of nuclear power stations, the application of high-speed electronic computers for automatic control, regulation and protection of the system, the increasing use of semiconductor, the use of various types of fuels, etc. These problems were presented in two earlier publications of the Academy of Sciences: Vrachuyevy osnovnyye zadachi i razvitiya yedynoy energeticheskoy sistemy SSSR (Scientific bases in the creation and development of a Unified Power System in the USSR) Conclusions of a Coordinating Conference, Moscow, 1964 and Razrabotka nachalnykh osnovnykh razvitiya yedynoy energeticheskoy sistemy i ikh ob'yedineniya yedynoy energeticheskoy sistemy

ROSSIYKIN, P.

At the cotton cleaning plant. Pozh. delo 4 no.1:14 Ja '58. (MIRA 11:1)

1. Glavnyy inzhener, predsedatel' pozharo-tekhnicheskoy komissii
Pakhta-Aral'skogo khlopkoochistitel'nogo zavoda.
(Kazakhstan--Cotton manufacture--Fires and fire prevention)

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Esters of α -keto phosphonic acids. M. I. Kabachnik and P. A. Rosolskaya (Inst. Org. Chem., Acad. Sci. U. S. S. R.; *Bull. acad. sci. U. R. S. S., Classe sci. chim.* 1945, 361-74 (in Russian)). The synthesis follows the pattern of Arbuzov's reaction between alkyl halides and phosphorous acid esters, $RX + P(OR')_3 = RP(OR')_2X$, and $RP(OR')_2X = RP(=O)(OR')_2 + R'X$, where X is Cl, Br, or I, thus far successfully applied for the prepn. of alkanephosphonic and alkanehalophosphonic and of β -keto phosphonic acids. Previous failures to synthesize in this way esters of α -keto phosphonic acids are ascribed to impurity of the initial phosphorous acid ester (presence of phosphonic acid). The reaction with acyl halides $RCOX + P(OR')_3 = RC(=O)P(OR')_2X$, and $RCOP(OR')_2X = RCOP(=O)(OR')_2 + R'X$, resulting in α -keto phosphonic acid esters, takes place at ordinary temps., and even on cooling. *Di-Et benzoyl phosphonate*, $C_{14}H_{18}O_5$, is prepd. by gradual addn. of 10.2 g. $P(OEt)_3$ to 13.7 g. $BzCl$. The reaction proceeds with evolution of heat. At the end, the mixt. is heated in a water bath for

15 min. and distd. under 2.5 mm. The main product, b.p. 141° (yield 60.5%), is a light yellow liquid, insol. in water, sol. in alc. and in ether, $d_4^{20} 1.1599$, $n_D^{20} 1.5065$. *Di-Me ester* is prepd. in the same way from 32.6 g. $P(OMe)_3$ and 35.5 g. $BzCl$; the main fraction b.p. $144.5-6^\circ$ (yield 71.0%), $d_4^{20} 1.2100$, $n_D^{20} 1.5251$. *Di-Me acetyl phosphonate* is prepd. by adding to 19.7 g. $AcCl$ 24.6 g. $P(OMe)_3$ at such a rate that the temp. does not rise by more than 5° (stirring and cooling). The mixt., after standing 12 hrs., is subjected to distn. under 5 mm.; the main fraction b.p. $73-6^\circ$ (yield 58.7%), $d_4^{20} 1.2109$, $n_D^{20} 1.4210$, colorless liquid sol. in water, alc., and ether, insol. in gasoline. The *di-Et ester* is obtained in the same way as the *Me ester* but at $25-30^\circ$, and in a much lower yield: with 8.3 g. $AcCl$ and 17.6 g. $P(OEt)_3$, the main fraction b.p. $75-80^\circ$ (yield 11.5%), colorless liquid, darkening on standing (except in a sealed vessel), sol. in water, alc., and ether, insol. in gasoline and ligroin, $d_4^{20} 1.0901$, $n_D^{20} 1.4280$. All α -keto phosphonic acid esters easily form *p*-nitrophenylhydrazones, more readily sol. in alc. than the initial *p*-nitrophenylhydrazine and sol. in aq. alkali with a characteristic bright red color. Alk. hydrolysis of the benzoyl phosphonic esters (in aq. alc. soln.) results in rupture of the P-C bond according to the 2 simultaneous reactions: (A) $BzPO(OEt)_2 + 3 NaOH = BzH + Na_2PO_3 + 2 EtOH$, and (B) $BzPO(OEt)_2 + 3 NaOH = BzONa + Na_2HPO_3 + 2 EtOH$. Reduction with Na-Hg in aq. alc. $AcOH$, starting with benzoyl phosphonic esters, resulted in esters, $PhCH(OH)P(OR')_2$, of α -hydroxybenzyl phosphonic acid (D). The *Me ester* (in 101 2°) gave, on sapon. with boiling HCl (1:1, l. m. $177-8^\circ$), identical with the compd. synthesized from BzH and PCl_3 . These reactions prove the structure of the newly synthesized compd. as $RCOPO(OR')_2$. Then

ROSSIYSKAYA, P. A.

"Esters of α -Ketophosphonic Acids. II. Acid Splitting."

Iz. Ak. Nauk SSSR, Otdel Khim. Nauk, No 6, 1945.

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CROSS ELEMENTS																										CROSS ELEMENTS																										CROSS ELEMENTS																									
<i>pa</i> Esters of α ketophosphonic acids. II. Acid splitting. M. I. Kabanov and P. A. Russkaya. <i>Bull. Acad. Sci. U.S.S.R., Chem. Ser.</i> 1945, 597-602; cf. C.I. 40, 1688. In abs. MeOH, EtOH, PrOH, in the presence of dry HCl, Me esters of acetyl- and benzoylphosphonic acids react according to the equation $RCOP(O)(OMe)_2 + R'OH \rightarrow RCO(R') + HPO(OMe)_2$ ($R = Me, Ph; R' = Me, Et, Pr$). AcPO(OMe)₂ (0.8 g) in 1.1 g. abs. MeOH, satd. with dry HCl until acid to Congo and heated in a water bath for 3.5 hrs., yielded 75.5%, AcOMe; the fractions b, 53-100°, when redistd., gave 2.8 g. of a liquid b. 40-52°, d₄²⁰ 1.020, n_D²⁰ 1.3908, which was identified by its reactions as HPO(OMe)₂. AcPO(OMe)₂ (0.9 g) in 2.72 g. PrOH with HCl gave 2.2 g. AcOPr and 28% HPO(OMe)₂. In the absence of HCl, even on heating, no quant. splitting could be obtained. BzPO(OMe)₂ (10.7 g.) (b) plus 2.3 g. abs. EtOH heated for 2 hrs. at 70°, and fractionated gave 1.5 g. HPO(OMe)₂, about 1 g. BzEt, and 8.3 g. unchanged b. Without HCl and without heating, b formed addn. products with all 3 alcs. b (2.1 g.) in 0.32 g. abs. MeOH crystal spontaneously, after drying the yield was 90.9%, analysis confirmed the addn. compd. Ph(MeO)(HOCPO)(OMe)₂, m. 73.6°. The crystals decompd. gradually both on standing in a sealed tube and over P₂O₅. b (2.1 g.) in 0.16 abs. EtOH kept at -14 to -11° for 20 hrs. gave 1.4 g. prisms, m. 64.6°; the loss of wt. after 6 weeks' standing (const. wt.) corresponded to the calcd. EtOH in the 1:1 mol. compd. b (1 g.) and 0.3 g. PrOH at -10°C. for 24 hrs. gave 1.2 g. (87%) addn. compd., m. 81.7°, which decompd. rapidly in a sealed tube. It was demonstrated that the rupture of the P-C bond need not be preceded by hydrolysis of the ester group and formation of free α ketophosphonic acid. The general mechanism appears to be $RCOP(O)(OR')_2 + R''OH \rightarrow R(R''O)(HOCPO)(OR')_2$, followed by $R(R''O)(HOCPO)(OR')_2 \rightarrow RCO(R'') + HPO(OR')_2$ ($R = Me, Ph; R' = Me, Et; R'' = H, Me, Et, Pr$). N. Thon																																																																													
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ORGANOPHOSPHORUS COMPOUNDS. I. Reaction of ethylene oxide with phosphorus trichloride. M. I. Kabachnik and P. A. Rossitskaya. *Izvest. Akad. Nauk S.S.S.R. Otdel. Khim. Nauk* 1946, 295-304 (in Russian); cf. C.A. 42, 5736g. - Ethylene oxide reacts readily with PCl_3 , giving all 3 possible 2-chloroethyl derivs., which can be controlled by the proportions of reagents. Ethylene oxide (17 g.) and 41 g. PCl_3 were placed in flasks connected to each other by a tube; the app. had to be cooled due to the extreme vigor of the reaction. After standing overnight, 27 g. of the resulting product (the rest was set aside for other expts.), distd. in *vacuo*, gave, after a 2nd distn. at atm. pressure in CO_2 , 5.5 g. $\text{ClCH}_2\text{CH}_2\text{OPCl}_2$ (I), b. 172-5°, d_4^{20} 1.1689, d_4^{25} 1.1673, n_D^{20} 1.5031, and 8.3 g. $\text{ClCH}_2\text{CH}_2\text{O}-\text{PCl}_2$ (II), b. 101-3°, d_4^{20} 1.4010, d_4^{25} 1.4007, n_D^{20} 1.4950. A more convenient prepn. is run in the liquid phase. Into 137 g. PCl_3 with stirring and cooling was passed ethylene oxide until 42.0 g. was absorbed; distn. gave 105.4 g. I, b. 168-72.5°, and 28 g. II, b. 102-5°. Hydrolysis of I with H_2O rapidly gave HCl and H_3PO_3 (calomel test); II is similarly rapidly hydrolyzed. When ethylene oxide was passed into 35 g. PCl_3 with cooling, so that the temp. did not exceed 20°, until heat evolution stopped, and then until a 10% excess over 3:1 molar ratio was absorbed, and the mixt. allowed to stand overnight and then heated on a steam bath for 0.5 hr. to expel excess ethylene oxide, the residue weighed 69 g., indicating exactly 3 mols. absorption; distn. up to 165° at 3 mm. gave 48.2 g. products and 10 g. residue. The largest fraction of the 1st distn. (30.4 g.) b. 121-0°. Repeated distns. led to a gradual decrease of low-boiling fractions and increase of higher-boiling fractions, which is caused by isomerization, discussed in later papers. It was possible to isolate 6 g. pure unisomerized $(\text{ClCH}_2\text{CH}_2\text{O})_3\text{P}$, b. 112-15°, d_4^{20} 1.3453, d_4^{25} 1.3443, n_D^{20} 1.4818, as a colorless liquid, rapidly decompd. by water, especially on heating, sol. in org. solvents; although it dissolves CuCl_2 , it was not possible to isolate a cryst. adduct; on addn. of water it forms a 2-layer system which slowly becomes homogeneous (rapidly on heating) with liberation of H_3PO_3 . While this ester and I are stable on storage when protected from moisture and O_2 , II is unstable and deposits a yellow ppt., while distn. gives varying amts. of I and the neutral phosphite ester (after 1 yr. storage in a closed flask); similarly, II decomp. to a complex mixt. of products on heating to 180° and gives a yellow ppt. It can be heated unchanged to 190° and is only partly decompd. after 1.5 hrs. at 215°. It does not show signs of isomerization. II. Transformation of tris(2-chloroethyl) phosphite into compounds of pentavalent phosphorus. *Ibid.* 403-10. Heating 14 g. $\text{P}(\text{OCH}_2\text{CH}_2\text{Cl})_3$ 4 hrs. to 150-60°, followed by distn., gave 7.8 g. $\text{ClCH}_2\text{CH}_2\text{PO}(\text{CH}_2\text{CH}_2\text{Cl})_2$ (I), b. 169-71°, m. 30.8-7.0° (from petr. ether), 2.2 g. undistillable residue, and 2.0 g. crude phosphonate, b. 148-65°. The product may be obtained more simply as follows: 137.5 g. PCl_3 is addd. by ethylene oxide with cooling, until somewhat over 132 g. is taken up, and after standing overnight the mixt. is distd. in a good vacuum (better than 5-6 mm.), collecting a fraction b. 130-75° (175-80 g.). This represents a mixt. of the phosphite and the phosphonate; it is divided into 2 portions to moderate the vigor of the isomerization and is heated 5 hrs. at 150-60°; distn. gives 110 g. (40%) I, b. 165-71°. If the temp. is allowed to go over 165° due

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to local overheating, considerable $\text{ClCH}_2\text{CH}_2\text{Cl}$ forms and the yield of I drops. I supercools easily, d_4^{20} 1.3909, d_4^{25} 1.3882, n_D^{20} 1.4828, insol. in water, sol. in the usual org. solvents. I could not be hydrolyzed by boiling with H_2O or with aq. KOH. Heating with aq. KOH led to a loss of HCl with formation of a vinyl deriv.; heating with HCl appears to give at least partial hydrolysis. I (3 g.) and 10 ml. concd. HCl were heated in a sealed tube 4.5 hrs. at 150-200°; after evapn., the residue was again evapd. with H_2O , then with EtOH, and dried over P_2O_5 to give 2-chloroethanephosphonic acid, colorless needles, m. 74-5°, very hygroscopic, sol. in H_2O and EtOH, difficultly sol. in C_6H_6 and $(\text{CH}_2\text{Cl})_2$, insol. in petr. ether, gives a difficultly sol. Mg salt. The acid is best crystd. from $\text{ClCH}_2\text{CH}_2\text{Cl}$, then from C_6H_6 . I (29.5 g.) was heated in a distn. app. with 46 g. PCl_3 at 130-40° 2 hrs., 23 g. PCl_3 added, and the heating continued 2 hrs.; POCl_3 and $(\text{ClCH}_2\text{CH}_2\text{Cl})$ were continuously removed by distn., and distn. in vacuo gave 4.6 g. $\text{ClCH}_2\text{CH}_2\text{POCl}_2$, b. 64-9°/1.68° (pure), d_4^{20} 1.5443, n_D^{20} 1.4977, and 9 g. undistilled liquid, b. 110-30°. Evapn. of an aq. soln. of this chloride gave the same $\text{ClCH}_2\text{CH}_2\text{POCl}_2$, m. 74°, as obtained above from I. Crude $(\text{ClCH}_2\text{CH}_2\text{O})_2\text{P}$ (from the passage of 33.3 g. ethylene oxide into 34.4 g. PCl_3) was treated at -18° with dry Cl until absorption stopped (20.4 g. wt. gain); distn. in vacuo gave $(\text{ClCH}_2\text{CH}_2\text{O})_2\text{P}$ (only 4.4 g. obtained due to ineffective condensation) and 16.4 g. crude, 12.4 g. pure, $\text{ClP}(\text{OClCH}_2\text{CH}_2\text{O})_2$, b. 137-9°, colorless liquid, insol. in water and only slowly hydrolyzed by it. Much undistillable residue was left. The chlorophosphate on redistn. b. 137-9°/1.4023, n_D^{20} 1.4742. The formation of this substance is in accord with the known reaction of $(\text{RO})_2\text{P}$ with Cl. The formation of I from $(\text{ClCH}_2\text{CH}_2\text{O})_2\text{P}$ is an example of an intramol. Arbuzov isomerization reaction, going through an intermediate $(\text{ClCH}_2\text{CH}_2\text{O})_2\text{P}(\text{Cl})$.

III. Preparation of 2-chloroethanephos-

phoryl chloride. *Ibid.* 515-21.

—To 11.25 g. $\text{ClCH}_2\text{CH}_2\text{P}(\text{O})(\text{OCH}_2\text{CH}_2\text{Cl})_2$ (I) was added 14 g. PCl_3 and, when the spontaneous reaction ceased, the mixt. was warmed until $(\text{ClCH}_2\text{CH}_2\text{O})_2\text{P}$ distn. began (this proceeds spontaneously due to the heat evolved in the reaction); when the action ceased, the mixt. was distd. in vacuo, giving 51% $\text{ClCH}_2\text{CH}_2\text{P}(\text{O})(\text{OCH}_2\text{CH}_2\text{Cl})_2$.

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CH₂PO(OCH₂CH₂Cl)Cl, b_p 123-4.5°, d 1.4528, n_D²⁰ 1.4907, liquid fuming in air and easily decompd. by water, losing 1 Cl; treatment of this with 4 moles PhNH₂ in dry C₆H₆ 2 hrs. gave ClCH₂CH₂PO(OCH₂CH₂Cl)NHPh (95%) m. 95.5-7.0° (from ClCH₂CH₂Cl and petr. ether), needles, sol. in alcs., Me₂CO, C₆H₆, insol. in petr. ether and H₂O. The low-boiling fraction obtained in the above prepn. on refracti nation gave 13% of the previously described ClCH₂CH₂POCl₂ (see part II); the yield was raised to 22% by using a large excess PCl₅ and heating the mixt. to 130-40°. Heating the above ester chloride with an equal wt. of PCl₅ in a sealed tube 2.5 hrs. to 135-45° and 1.5 hrs. to 150-50° gave 53.5% of the dichloride: 70% was obtained when 80 g. I and 124 g. PCl₅ were heated 2 hrs. to 140-50° in sealed tubes. To the undistillable residue obtained in the prepn. of I (see part II) (20g.) was added 52 g. PCl₅ and the mixt. kept 2 hrs. at 145-50° in a sealed tube, giving 12.4g. dichloride. PCl₃ (1 mole) was satd. with ethylene oxide with cooling as described earlier and the crude mixt. carefully heated to 160° 5 hrs.; the product, in 20 g. portions, treated with 32g. PCl₅ (per portion) 2.5 hrs. at 150°.

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gave 52% of the dichloride, b.p. 82-80, n_D^{20} 1.498, d_4^{20} 1.543. The above mentioned undistillable residue from the prepn. of I appears to be a product of polycondensation by an intermol. Arbuzov reaction; this view is supported by the evolution of small amts. of $(CH_2Cl)_2$ during the isomerization, and it appears to consist, at least in part, of repeating units of the type- $(CH_2CH_2OPO(OCH_2CH_2Cl)_n)-$. Such a structure of the product readily explains the formation of $ClCH_2CH_2POCl_2$ in the reaction with PCl_5 .

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ROSSIYSKAYA, P. A.

"Investigations in the Field of Organic Compounds of Phosphorus. I. On the Interaction of Ethylene Oxide with Phosphorus Trichloride."

Iz. Ak. Nauk SSSR, Otdel Khim. Nauk, No 3, 1946.

ROSSIYSKAYA, P. A.

"Investigations in the Field of Organic Compounds of Phosphorus. III. Preparation of β -chloroethylphosphonyl-chloride.

Iz. Ak. Nauk SSSR, Otdel Khim. Nauk, No 5, 1946.

ROSSIYSKAYA, P. A.

PA 8T13

USSR/Chemistry - Ethers
Alpha - Ketophosphinic acids

Feb 1947

"Ethers of Alpha-Ketophosphinic Acids," M. I. Kabachnik, P. A. Rossiyskaya,
F. S. Shepeleva, 8 pp

"Izv Ak Nauk Khim" No 2

Study of the two types of derivatives of carboxylic acids.

8T13

ROSSIYSKAYA, P. A.

"Esters of α -Ketophosphonic Acids. III. On Two Types of Derivatives of Carboxylic Acids."

Iz Ak. Nauk, SSSR, Otdel. Khim. Nauk, No 2, 1947.

PROCESS AND PROPERTIES INDEX

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CH

Phosphoorganic compounds. IV. Derivatives of 2-chloroethanephosphonic acid. M. I. Kabachnik, P. A. Rossitskaya, and N. N. Novikova. *Bull. acad. sci. U.R.S.S., Classe sci. chim.* 1947, 97-100 (in Russian); *cf. C.A.* 42, 2924b. -- Dry EtOH (13.8 g.), 21.4 g. pyridine, and 120 cc. Et₂O, treated with cooling and stirring with 27 g. $\text{ClCH}_2\text{CH}_2\text{POCl}_2$ (I) in Et₂O, let stand overnight, and filtered, gave 18 g. $\text{ClCH}_2\text{CH}_2\text{PO(OEt)}_2$, b. 92-4°, d₄²⁰ 1.1505, d₄²⁵ 1.1558, n_D²⁰ 1.4300. Similarly, 18.2 g. $\text{ClCH}_2\text{CH}_2\text{POCl}_2$, 6.4 g. MeOH, 30 g. Et₂NPh in Et₂O gave the di-Me ester, b. 65-7°, d₄²⁰ 1.2666, n_D²⁰ 1.4490 (3.7 g.). I (2.7 g.), heated with 4.3 g. PhOH to 120-30° 3 hrs. and 1 hr. to 150-40°, yielded 2.0 g. di-Ph ester, b. 170-8.5°, d₄²⁰ 1.2671, d₄²⁵ 1.2693, n_D²⁰ 1.5577. I (18 g.) and 12 g. pyrocatechol heated 1 hr. to 130-40° gave 19.7 g. $\text{ClCH}_2\text{CH}_2\text{PO(OEt)}_2$, b. 107-70°, d₄²⁰ 1.4026, d₄²⁵ 1.4015, n_D²⁰ 1.5502 (the material before distn. is a cryst. solid dipyrocatechyl ester, which cyclizes on distn.). I (18 g.) and 12 g. pyrocatechol, heated 1 hr. to 140°, cooled, and seeded, gave a cryst. solid, which, after treatment with charcoal in benzene soln. and pptn. by an equal vol. of petr. ether, gave an oil which was discarded; the supernatant soln. on evapn. gave $\text{ClCH}_2\text{CH}_2\text{PO(OCH}_2\text{CH}_2\text{OH)}_2$, m. 100-2°, deliquescent in air. I (0.9 g.) was mixed in benzene soln. with 1.9 g. PhNH₂ and after 4 hrs. standing the mixt. was filtered and washed with hot benzene; evapn. of the filtrate gave 60% $\text{ClCH}_2\text{CH}_2\text{PO(NHPh)}_2$, m. 100-70° (from dil. EtOH). V. Esters of ethylenephosphonic acid. M. I. Kabachnik. *Ibid.* 233-4. -- $\text{ClCH}_2\text{CH}_2\text{PO(OEt)}_2$ (17.8 g.) was added to 4.9 g. KOH in EtOH; heat was generated and KCl pptn. began; after heating 1 hr. on a steam bath the mixt. was filtered to give, after 2 distns., 6.1 g. pure $\text{ClCH}_2\text{CH}_2\text{PO(OEt)}_2$, b. 68-70°, d₄²⁰ 1.0520, n_D²⁰ 1.4300. This (2.8 g.) treated with 2.6 g. Br in 15 cc. CHCl₃, allowed to stand overnight, and distd., gave 2.1 g. $\text{BrCH}_2\text{CH}_2\text{BrPO(OEt)}_2$, b. 129-31.5°, d₄²⁰ 1.6634, d₄²⁵ 1.6506, n_D²⁰ 1.4939. $\text{ClCH}_2\text{CH}_2\text{PO(OCH}_2\text{CH}_2\text{Cl)}_2$ (27 g.) with 6 g. KOH as above gave $\text{ClCH}_2\text{CH}_2\text{PO(OCH}_2\text{CH}_2\text{Cl)}_2$, b. 137-9°, d₄²⁰ 1.3212, d₄²⁵ 1.3182, n_D²⁰ 1.4772. The vinyl compds. on heating with 2-3% H₂O₂ polymerize to viscous resinous products.

G. M. Kosolapoff

A.S.U.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

E-2

ROSSIYSKAYA, P. A.

"Investigations in the Field of Organic Compounds of Phosphorus. On the Interaction of Ethylene Oxide with Phosphorus Tribromide."

Iz. Ak. Nauk SSSR, Otdel Khim. Nauk, No 4, 1947.

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PROCESSES AND PROPERTIES INDEX

Phosphoorganic compounds. VI. Reaction of ethylene oxide with phosphorus tribromide. P. A. Romilskaya and M. I. Katschuk. *Bull. Acad. Sci. U.R.S.S., Class. sci. chim.* 1947, 380-85 (in Russian).—Ethylene oxide (I) reacts with PBr_3 in a manner exactly analogous to the previously reported reaction with PCl_3 (*ibid.* 1946, 285; part V, 1947, 233). This is possible only because of the complete absence of generated HBr , which, in the case of reactions of ROH with PBr_3 , immediately cleaves the intermediate Br_3POR (or $BrP(OR)_2$, etc.) and yields RBr . I reacts with PBr_3 vigorously and, unless cooling is used, yields much yellow P and a complex mixt. of products: PBr_3 (303.2 g.), treated with 51.0 g. I with stirring at -10° to -5° , then allowed to stand overnight and distd., gave 121.2 g. $BrCH_2CH_2OPBr_2$, b_p 70–80°, d_4^{25} 2.3780, n_D^{25} 2.3738, n_D^{20} 1.6118, and 10.4 g. $(BrCH_2CH_2O)_2PBr$, b_p 115–119°, d_4^{25} 2.1133, d_4^{20} 2.1100, n_D^{25} 1.5071, which changes on repeated distn. (see the Cl analog). When 57.2 g. PBr_3 was treated with 33.4 g. I at -15° to -12° , allowed to stand overnight and heated 3 hrs. on a steam bath to expel the excess I, it was found impossible to distill the resulting $(BrCH_2CH_2O)_2P$ because of the ensuing isomerization reaction. Hence, the product was isomerized directly by heating to 120° 3 hrs., then to 130° 3 hrs. On cooling the mass crystall., on seeding with the Cl analog, to give 29.8 g. $(BrCH_2CH_2O)_2P(O)CH_2CH_2Br$, $m.$ 48–50° (from petr. ether). This (10 g.) and 10.4 g. PCl_3 , heated in a sealed tube 4 hrs. at 140–5°, gave $Cl-CH_2CH_2Br$ and 51.5% $BrCH_2CH_2P(O)CH_2CH_2Br$, b_p 119–20°, d_4^{25} 1.8202, d_4^{20} 1.8242, n_D^{25} 1.5210. This (1.38 g.), added slowly to water, the soln. evapd., and the residue crystall. alternately from benzene and $ClCH_2CH_2Cl$, gave 0.45 g. $BrCH_2CH_2P(O)(OH)_2$, $m.$ 80–7°, sol. in H_2O , $EtOH$, and $CHCl_3$, poorly sol. in benzene, insol. in petr. ether. The dichloride with 4 moles $PhNH_2$ in benzene gave the diarside, $m.$ 100–70° (from aq. $EtOH$ and $CHCl_3$).
G. M. Kosolapoff

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ROSSIYSKAYA, P. A.

IA 5314

USSR/Chemistry - Phosphorus
Chemistry - Organic Compounds

Sep/Oct 1947

"Investigations in the Field of Phosphoorganic Compounds, VII," P. A. Rossiyskaya, M. I. Kabachnik, Inst Org Chem, Acad Sci USSR, 6 pp

"Izv Akad Nauk SSSR, Otd Khim Nauk" No 5

Studies reaction of glycol with trichloride of phosphorous and Menshutkin's acid chlorides, and shows that cyclic glycol esters are formed during reaction.

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1ST AND 2ND ORDERS		PROCESSES AND PROPERTIES INDEX	
ROSSIISAYA Phosphoric compounds. VIII. Mixed 2-chloro-ethyl aryl esters of phosphorous acid. M. I. Kabachnik. <i>Bull. Acad. Sci. USSR Div. Chem. Sci.</i> 1947, 631-9; <i>Chem. Abstr.</i> 42, 2921b, 11322k. $(\text{PhO})_2\text{PCl}$ (8.7 g.) was treated with ethylene oxide (I) at 10-15° until slightly over 1 mole was taken up; the mixt. was warmed on a steam bath to expel excess I, after which distn. in a CO_2 atm. gave 6.2 g. $(\text{PhO})_2\text{POCH}_2\text{CH}_2\text{Cl}$ (II), b. 163-4°, n_D 1.509, d₄ 1.2317, n_D 1.5581. Standing of II in water 2 days leads to complete hydrolysis to H_3PO_3. II (3.6 g.) heated 3.5 hrs. to 250° (in a distg. flask) gave some $\text{ClCH}_2\text{CH}_2\text{Cl}$ and 2.1 g. $(\text{PhO})_2\text{P}(\text{O})(\text{CH}_2\text{CH}_2\text{PO}(\text{OPh})_2)$, m. 163-5°, (from PhMe), stable to warm dil. HCl and NaOH; 0.5 g. of this ester heated with 10 ml. 1:1 HCl 8 hrs. to 130°, then briefly to 145° in a sealed tube, gave, after extr. with Et_2O and evapn. of the aq. layer, 80% $(\text{CH}_3\text{PO}_2\text{H})_2$ with $\text{EtOH-Et}_2\text{O}$, sol. in H_2O, EtOH, slightly in Me_2CO, insol. in Et_2O, petr. ether, and benzene; the acid cannot be titrated directly with phenolphthalein because of indistinct endpoints, but on addn. of 6-7 g. NaCl to 50-75 ml. of aq. soln. at 0°, it titrates well as a tetrabasic acid. PhOPCl_2 (30.8 g.) was treated with I, steam bath the product was distd. <i>in vacuo</i>, giving 5.7 g. product, b. 150-2°, d₄ 1.2854, n_D 1.5270, which readily hydrolyzes completely on standing in water; considerable amts. of lower-boiling phosphite esters, which were not investigated, were also obtained. <i>o</i>-Phenylene chlorophosphite, b. 71-2°, was prepd. in 80% yield from catechol and PCl_3 according to Arbuzov and Valitova (<i>C.A.</i> 35, 30840). This (44.5 g.) was treated with I at 10-20° until heat evolution stopped; after standing overnight, the excess I was expelled by warming and the product distd. <i>in vacuo</i> to give 10% $1,2\text{-C}_6\text{H}_4\text{O}_2\text{P}(\text{O})(\text{CH}_2\text{CH}_2\text{Cl})_2$, b. 111°, b. 107-8°, d₄ 1.3155, n_D 1.5130, a liquid which rapidly hydrolyzes in moist air; addn. of CaCl_2 gives the equimol. adduct, m. 135-7°. When the ester (35 g.) was heated in a sealed tube 5 hrs. to 290°, much HCl was generated and, on cooling, the product crystd.; distn. <i>in vacuo</i> gave 20.5 g. very viscous oil, b. 260-80°, which on gradual cooling (a glass forms on crystal. on warming and gradual cooling (a glass forms on rapid cooling); on redistn. it b. 205°. The product melts very unsharply about 190° and the m.p. could not be improved by crystn. while treatment with the usual solvents obviously altered the product. Analysis and behavior of the product indicated its structure is $1,2\text{-C}_6\text{H}_4\text{O}_2\text{P}(\text{O})(\text{CH}_2\text{CH}_2\text{Cl})_2$, which was confirmed by hydrolysis with 1:1 HCl in hrs. at 125-35° in a sealed tube, followed by extr. with Et_2O to remove catechol and evapn. of the aq. soln. to give 70% $(\text{CH}_3\text{PO}_2\text{H})_2$, m. 230-1° (from $\text{EtOH-Et}_2\text{O}$). A slight foretun in the distn. of the above ester crystd. on cooling and was identified as pyrocatechol, m. 105-6°, not a trace of the expected pyrocatechol 2-chloroethane phosphonate was found. The results indicate that aryl phosphonates react with I normally, giving 2-chloro-ethyl phosphites; the latter, however, do not isomerize by a normal Arbuzov reaction, but form esters of ethylenediphosphonic acid. The mechanism of this reaction is obscure as the results may be explained either by			
ASACSLA METALLURGICAL LITERATURE CLASSIFICATION 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100			

the normal isomerization, followed by reaction of the chloroethanephosphonate resulting from the isomerization with unreacted phosphite ester, or by a trimol. reaction of 2 moles of chloroethyl phosphite deriv. with $\text{ClCH}_2\text{CH}_2\text{Cl}$ (which usually is found in isomerization mixts. of 2-chloroethyl phosphites). IX. Mixed 2-chloroethyl ethyl esters of phosphorous acid. M. I. Kabachnik and P. A. Rossitskaya. *Ibid.* 1948, 95-9 (in Russian). -- $\text{ClCH}_2\text{CH}_2\text{OPCl}_2$ (31 g.) in 20 ml. Et_2O added slowly with stirring and cooling to 15-75 g. EtOH and 27 g. pyridine in 100 ml. Et_2O , let stand overnight, sepl. from the pyridine-HCl, and fractionated, gave: 5.1 g. $(\text{EtO})_2\text{P}$, b_p 66-8°, n_D^{20} 1.4170, 0.9 g. $(\text{EtO})_2\text{P}(\text{OCH}_2\text{CH}_2\text{Cl})$, b_p 71-2°, d_4^{25} 1.1032, d_4^{20} 1.1025, n_D^{20} 1.4391, 2.0 g. $(\text{ClCH}_2\text{CH}_2\text{O})_2\text{P}(\text{OEt})$, b_p 111-13°, d_4^{25} 1.2202, d_4^{20} 1.2283, n_D^{20} 1.4617, and about 2 g. crude $\text{P}(\text{OCH}_2\text{CH}_2\text{Cl})_3$, b_p 125-35°, n_D^{20} 1.4870. Apparently an extensive disproportionation of the alkyl radicals takes place during the reaction. It is not subject to isomerization on distn. *in vacuo*, in which respect it differs from $\text{P}(\text{OCH}_2\text{CH}_2\text{Cl})_3$. Isomerization does occur on heating 3.5 hrs. to 175-80°; 4.6 g. I gave 1.15 g. $\text{ClCH}_2\text{CH}_2\text{P}(\text{OEt})_2$, b_p 102-7°, d_4^{25} 1.1512, d_4^{20} 1.1499, n_D^{20} 1.4395, identical with the product obtained earlier from $\text{ClCH}_2\text{CH}_2\text{POCl}_2$ (C.A. 42, 4132) in that hydrolysis with 1:1 HCl 2 hrs. at 140° gave $\text{ClCH}_2\text{CH}_2\text{P}(\text{OH})_2$, m_p 71-5°; the ester contained traces of the unisomerized I, as seen from a slight deviation of the phys. consts. from those of the pure substance. G. M. K.

ROSSIYSKAYA, P. A.

USSR/Chemistry - Phosphorous Acad,
Ethers of
Chemistry - Organic Compounds

Jan/Feb 1948

β "Investigation in the Field of Phosphororganic Compounds, Part IX: The Miscellaneous
B-Chloroethylethyl Ethers of Phosphorous Acid," M. I. Kabachnik, P. A. Rossiyskaya,
Inst of Org Chem, Acad Sci USSR, 5 pp

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1

Detailed description of how to obtain B -chloroethylethyl ethers of phosphorous acid,
and of the isomerization during heating.

PA 66T31

"Synthesis and Investigation of the Esters of Alpha-Keto-Phosphinic Acids." Thesis for degree of Cand. Chemical Sci. Sub 24 Mar 49, Inst of Organic Chemistry, Acad Sci USSR.

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

Ref 001 5-54 4/4, P. 14.

Chem Abs V48

1-25-54

Organic Chemistry

The chloride of 2-chloroethylphosphonic acid M. I. Kabachnik and P. A. Borsukaya. Akad. Nauk S.S.S.R., Ind. Org. Khim., Sintezy Org. Soedinenii, Sbornik 2, 142-3 (1952); cf. C.A. 42, 7242ci. -- Into 137.5 g. PCl_3 was passed ethylene oxide at about 20° until a wt. gain of at least 132 g. was attained. The mixt. was kept overnight and then heated cautiously, with protection from moisture, to 160° (if heating is rapid, the reaction may get out of control) for 5 hrs. The product, containing $\text{OP}(\text{OCH}_2\text{CH}_2\text{Cl})_2$, was sepd. into 20 g. portions, each of which was heated with 32 g. PCl_3 in sealed tube 2.5 hrs. at 150° . Distn. yielded 50-2.5% $\text{ClCH}_2\text{CH}_2\text{POCl}_2$, b.p. $82-4^\circ$, b. 68° , b.m. $213-17^\circ$ (decompn.), d_4^{25} 1.5443, d_4^{20} 1.5430, n_D^{25} 1.4977. Hydrolysis yields $\text{ClCH}_2\text{CH}_2\text{P}(\text{OH})_2$, m. 74° . G. M. K.

114
7-28-54

ROSSIYSKAYA P. A.

AUTHORS: Kabachnik, M. I., and Rossiyskaya, P. A. 62-1-7/21

TITLE: About the Reaction of Chloroacetylchloride, Trichloroacetylchloride and Phosgene with Trialkylphosphites (O reaktsii khloratsetilkhlorida, trikhloratsetilkhlorida i fosgena s trialkilfosfitami)

PERIODICAL: Izvestiya Akademii Nauk, Otdeleniye Khimicheskikh Nauk, 1957, No. 1, pp. 48-53, (U.S.S.R.)

ABSTRACT The possibility of obtaining substances with a highly active carbonyl group by placing the latter between two phosphine groups or between a phosphine and chloro-containing groups, was investigated. In order to synthesize substances with such a combination of atoms, the authors applied the reactions of trialkylphosphites with acid chlorides of chloro-containing acids and carbonic acid. It was established that phosgene reacts easily with trimethylphosphite according to the Arbuzov reaction resulting in the separation of methyl chloride and formation of methyl ether of chloroformylphosphinic acid. During the reaction of the second phosphite molecule with the chloroformylphosphinic acid ester, there is again an Arbuzov type regrouping and the formation of carbon-yldiphosphinic acid ester, which is a labile substance changing during

Card 1/2

5(3)

AUTHORS:

Kabachnik, M.I., Rossiyskaya, P.A.

SOV/62-58-11-24/26

TITLE:

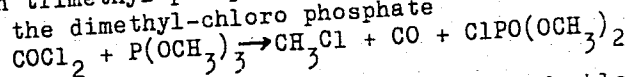
On the Reaction of Trialkyl Phosphites With Phosgene
(O reaktsii trialkilfosfitov s fosgenom)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958,
Nr 11, pp 1398 - 1398 (USSR)

ABSTRACT:

This short report is a rectification of the article "On the Reaction of Chloro Acetyl Chloride, Trichloro Acetyl Chloride and Phosgene With Trialkyl Phosphites" published in this periodical, Nr 1, 1957. The results described (Ref 1) could not be confirmed when the reaction was repeated. In a reaction of phosgene with trimethyl phosphite apart from the separation of carbon monoxide the dimethyl-chloro phosphate



is formed. Since in this reaction the expected chloroformyl-phosphinic ester was not obtained, the character of the following transformation products does not correspond to the formulae given in the same article and remains unexplained. There are 3 references, 1 of which is Soviet.

Card 1/2

On the Reaction of Trialkyl Phosphites With Phosgene

SOV/62-58-11-24/26

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR
(Institute of Elementoorganic Compounds Academy of Sciences, USSR)

SUBMITTED: July 4, 1958

Card 2/2

KABACHNIK, M.I.; ROSSIYSKAYA, P.A.; SHABANOVA, M.P.; PAYKIN, D.M.;
YEFIMOVA, L.F.; GAMPER, N.M.

Phosphoroorganic insecticides. Derivatives of β -dicarbonyl
compounds. Zhur.ob.khim. 30 no.7:2218-2223 J1 '60.
(MIRA 13:7)

1. Institut elementoorganicheskikh soedineniy Akademii
nauk SSSR.
(Insecticides) (Phosphorus organic compounds)

85616

S/050/60/000/011/004/005
B012/B063

6.8006 (320), 1099, 1162)

AUTHORS: Soskin, I. M., Vavilov, I. A., Rossiyskiy, B. M.

TITLE: Experience Gathered With the Use of the Radionavigation System "Koodinator" for the Observation of Currents

PERIODICAL: Meteorologiya i gidrologiya, 1960, No. 11, pp. 35-36

TEXT: In 1959 a series of experiments were made in the Baltic Sea for the purpose of determining the velocity and direction of marine currents by the use of the radionavigation system "Koodinator". This system is designed for the location of vessels. It is a follow-up system with continuous counting. A sonde-type receiver and a recording counter are mounted on the ship, while the control station and the reflecting station are installed on the shore. These experiments were performed on the test ship "Okeanograf". The drifting system (a cross and a float with a ranging rod) was located in certain intervals with the help of the above-mentioned radionavigation system. The trajectory of the drifting system determined in this way was used to calculate the elements of the

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85616

Experience Gathered With the Use of the
Radionavigation System "Koordinator" for the
Observation of Currents

S/050/60/000/011/004/005
B012/B063

current, and the current was simultaneously observed from an anchored ship. The elements of the current were thus obtained by two methods the results of which were found to be satisfactory. These observations are described in detail. The system "Koordinator" is recommended for use in deep-sea research. There is 1 figure. ✓

Card 2/2

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

11 - (5) - 49

Binder. E. E. Rosstskii. U.S.S.R. 05,849, Feb. 28 1910. abstracted in *Chem. Zentr.*, 1948, 1111, 121718. Ground basalt, as active agent, is mixed with 8 to 20% lime (slake-1 or unslake-1), gypsum, Portland cement clinker, etc., either during the grinding of the basalt or in the preparation of a batch. M Ha

ASB-51-A METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

20

CF

Bonding substance. E. E. Rossinskii. U.S.S.R. 65,540, Feb. 28, 1946. The starting material is basalt. To the ground basalt is added 8-20% of activators such as lime (slaked or quick), gypsum, portland cement clinker, and the like. These additives can be made either during grinding or during making up the mix. M. Hirsch

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

CA
10
Esters of α -keto phosphonic acids. III. Two types of carboxylic acid derivatives. M. I. Kabachnik, P. A. Rosulinskaya, and E. S. Shepeleva. *Bull. acad. sci.*

U.R.S.S., Classe sci. chim. 1947, 163-71; cf. *C.A.* 41, 884. The esters of the type $RC(=O)PO(OR')_2$ exhibit a considerable reactivity of the carbonyl group, analogously to that shown by α -keto carboxylic acids, trichloromethyl ketones, and other substances with an electron-attracting group adjacent to CO. Improvements in yields of the starting materials were made by controlling the temp. of the reaction of acyl chlorides with trialkyl phosphites; thus, $AcPO(OEt)_3$ was obtained in 80% yield when the prepn. was done at 0°, and the Et ester was prepd. in 50% yield at 15°. $(BuO)_3P$ (10 g.) added with cooling to 4 g. $AcCl$ and allowed to stand overnight gave, on distn., 49.8% $AcPO(OBu)_3$ (I), b.p. 87-8°, d_4^{20} 1.0199, n_D^{20} 1.4301; phenylhydrazone m. 104-4.5° (from $CHCl_3$ -ligroin or Et_2O). $BzPO(OMe)_3$ (4.2 g.) shaken briefly with an excess of concd. $NaHSO_3$ soln. and filtered gave 88% $PhC(OH)(SO_3Na)PO(OMe)_3$ (II), a white cryst. solid which softens at 94° but does not melt, sol. in H_2O , less sol. in $EtOH$. The use of the *di-Et* ester gave the corresponding analog in 61% yield; $AcPO(OMe)_3$ gave 65% of the corresponding deriv. as colorless crystals, sol. in H_2O , less sol.

in $EtOH$; $AcPO(OEt)_3$ gave 51% of the adduct having similar properties. I and $NaHSO_3$ gave 59.5% of the adduct, m. 135-6° (with some decompn.), sol. in H_2O and $EtOH$. To 17.5 g. II in 80 cc. H_2O at 5° was added a concd. aq. soln. of 5 g. KCN; the pptd. oil was taken up in Et_2O , dried, and distd. to give 84.8% $PhC(OH)(CN)PO(OMe)_3$, b. 143-3.5°, d_4^{20} 1.2246, n_D^{20} 1.4889; the same compd. is obtained in 76.8% yield on addn. of KCN to the crude mixt. of the ester and $NaHSO_3$; the product dissolves in H_2SO_4 with a red color, which changes to a yellow ppt. on diln. Hydrolysis, in an attempt to prep. the CO_2H deriv., by heating with 1.5 HCl 10 hrs. on a steam bath gave only $PhCH_2(OH)CO_2H$, as the C-P bond was completely cleaved. Similar reaction of 14.7 g. $MeC(OH)(SO_3Na)PO(OMe)_3$ with 3.8 g. KCN in 25 cc. H_2O gave 52.5% $MeC(OH)(CN)PO(OMe)_3$, b. 95°, b.p. 113-13.5°, d_4^{20} 1.1995, n_D^{20} 1.4092; the yield is 38% if the bisulfite adduct is not isolated; the product does not give a color with H_2SO_4 . The behavior of the α -keto phosphonates is contrasted to the carbonyl compds. in which the CO is adjacent to an ortho-para orienting group, i.e., NH_2 , Me; in the latter cases the activity of the CO group is greatly repressed. G. M. Kosolapoff

ROSSINSKIY, I.

World miners' conference in Prague. Mast. ugl. 4 no.1:30-32
D '55. (MLRA 8:6)

1. Predsedatel' Tsentral'nogo Komiteta profsoyuza rabochikh
ugol'noy promyshlennosti.
(Prague--Miners--Congresses)

AVRAMENKO, F.D.; VEYTS, V.I.; GUREVICH, B.A.; DENISOV, V.I.; ZAKHARIN, A.G.; KARAULOV, N.A.; KOLOSOV, I.S.; KRACHKOVSKIY, N.N.; KRITSKIY, S.N.; LEBEDEV, M.M.; LEONT'YEVA, T.K.; MENKEL', M.F.; NEKRASOV, A.S.; ROSSIYEVSKIY, G.I.; SHVORIN, B.I.; KRZHIZHANOVSKIY, G.M., akademik, red.; MARKOVICH, S.G., tekhn.red.

[Principal problems in designing a unified power system in the U.S.S.R.] Osnovnye voprosy planirovaniia edinoi energeticheskoi sistemy SSSR. Pod red. G.M.Krzhizhanovskogo, V.I.Veitsa. Moskva, 1959. 174 p. (MIRA 12:6)

1. Akademiya nauk SSSR. Energeticheskiy institut. 2. Chlen-korrespondent Akademii nauk SSSR (for Veyts).
(Electric power)

ROSSIYSKIY, DMITRIY MIKHAYLOVICH

200 (i.e. Dvesti) let meditsinskogo fakul'teta

Moskovskogo Gosudarstvennogo Universiteta i Moskovskogo Ordena Lenina
Meditsinskogo Instituta.

Moskva, Medgiz, 1955.

242 o. illus., 23 cm. —

Bibliography: p. 232-243

BORODKO, I.S.; ROSSIYSKIY, I.F.; POLIVANOV, M.N.

Crimping diaphragms on a hydraulic press with a metal die. Av.
prom. 26 no.8:87-88 Ag '57. (MIRA 15:4)
(Diaphragms (Mechanical devices))

1. ROSSIYSKIY, N. A.
2. USSR (600)
4. Efficiency, Industrial
7. "Spreading of advanced Stakhanov experience in applying Engineer F. Kovalev's method." Textbook edited by G. I. Obrastsov and M. M. Shakhnazarov. Reviewed by N. A. Rossiyskiy. Vest. mash. 32 no. 6: 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

ROSSIYSKIY, V.A., doktor tekhn.nauk; DARAGAN, K.A., inzh.

Using foam-slag concrete in highway girder bridges.
Avt.dor.i dor.stroi. no.1:97-108 '65.

(MIRA 18:11)

ROSSIYSKIY, Vladimir Alekseyevich, prof.; NAZARENKO, Boris Pavlovich, kand. tekhn. nauk; SLOVINSKIY, Nikolay Aleksandrovich, kand. tekhn. nauk; GIBSHMAN, Ye.Ye., prof., doktor tekhn. nauk, retsenzent; KALMYKOV, N.Ya., doktor tekhn. nauk, prof., retsenzent[deceased]; POLIVANOV, N.I., prof., doktor tekhn. nauk, retsenzent; KIRILLOV, V.S., kand. tekhn. nauk, retsenzent; BASOV, S.Ye., inzh., retsenzent; PANKRATOV, V.M., inzh., red.; GANYUSHIN, A.I., red.izd-va; BODANOVA, A.P., tekhn. red.

[Examples of the design of precast reinforced concrete bridges]
Primery proektirovaniia sbornykh zhelezobetonnykh mostov. Moskva, Avtotransizdat, 1962. 494 p. (MIRA 16:2)

1. Glavnyy spetsialist po mostam Khar'kovskogo otdeleniya Gosudarstvennogo proyektного instituta po promyshlennomu transportu (for Basov).

(Bridges, Concrete--Design and construction)

ROSSIYSKIY, Vladimir Alekseyevich, dotsent, kand. tekhn. nauk; DANILKINA, N.,
red.; BERGER, K., red.; BABIL'CHANOVA, G., tekhn. red.

[Precast reinforced-concrete retaining walls] Sbornye zhelezobeton-
nye podpornye stenki. Kiev. Gos. izd-vo lit-ry po stroit. i arkhit.
USSR, 1961. 157 p. (MIRA 14:8)
(Retaining walls) (Reinforced concrete construction)

ROSSIYSKIY, Vladimir Alekseyevich; NAZARENKO, Boris Pavlovich; ZAYCHENKO,
R.M., veduchiy redaktor; NOVIK, O., tekhnichniy redaktor

[Precast reinforced concrete] Zbirnyi zalizobeton. Kyiv, Derzh.
vyd-vo tekhn. lit-ry URSS, 1956. 60 p. (MLRA 10:4)
(Precast concrete construction)

GIBSHMAN, Yevgeniy Yevgen'yevich, zasl. deyatel' nauki i tekhniki
RSFSR, prof., doktor tekhn. nauk; KLYUCHAREV, V.A., prof.,
retsenzent; ROSSIYSKIY, V.A., prof., retsenzent;
GOLUBKOVA, Ye.S., red.

[Design of wooden bridges] Proektirovaniye dereviannykh
mostov. Moskva, Transport, 1965. 327 p. (MIRA 18:3)

3

CH

The reabsorption of radiation in high-pressure mercury discharges. Fritz Kessler. *Z. Naturforsch.* 6a, 263-70 (1951). The spherical distribution is measured of the radiation for several lines at different wave lengths and for the continuum. The shape of the light curve is shown to be dependent on the excitation potential of the lower energy levels. This similarity for both the lines and the continuum permits one to give the spherical distribution of the entire spectrum. An interpretation of the absorption ability of the curve leads to the detn. of the absorption ability of the discharge. This value gives a new means of measuring temp. in the discharge and also helps in making a comparison with a thermal radiator. The calcd. values agree for the lines but no such agreement is found with the observed radiation output for the continuum. In the latter case, therefore, the Kirchhoff law is invalid. George Meister.

ROSSLER, JOSEF

JINDRICH, Jira; SVEJCAR, Jan; ROSSLER, Josef

Further comments on trichomoniasis with reference to its occurrence in males. Cas. lek. cesk. 96 no.48:1495-1500 29 Nov 57.

1. Protozoologicka laborator Cs. akademie ved, prednosta akademik O. Jirovec. Vojensky ustav hygieny, epidemiologie a mikrobiologie a urologicke oddeleni, prednosta doc. MUDr V. Peces, St. fakultni nemocnice v Praze 2.

(TRICHOMONIASIS

urethritis in males (Cz))

(URETHRITIS, microbiol.

Trichomonas, in males (Cz))

ROSSLER, J.

On the problem of the use of heparin in treatment of nephrotic syndrome.
Cesk. pediat. 18 no.2:140-143 F '63.

1. Detske oddeleni nemocnice v Novem Bydzove, prednosta MUDr.
J. Genek.

(NEPHROTIC SYNDROME) (HEPARIN)

L 33194-66

ACC NR: AP6023821

SOURCE CODE: CZ/0014/66/000/002/0053/0055

AUTHOR: Rossler, Josef

ORG: none

TITLE: Transistorized millivoltmeter for 100 microvolts to 500 volts

SOURCE: Sdelovaci technika, no. 2, 1966, 53-55

TOPIC TAGS: voltmeter, transistorized circuit

ABSTRACT: The article describes a transistorized millivoltmeter with certain advantages, for example, low power consumption and weight, limiting itself to components typical of that type of instrument. Circuits and calculations are presented. Orig. art. has: 7 figures and 5 formulas. [JPRS]

SUB CODE: 14, 09 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 003

Card 1/1 *pla*

~~ROSSLER~~, Josef, MUDr.; JIRA, Jindrich, MUDr. RNDr.

Trichomoniasis in males. Rozhl. chir. 35 no.1:21-23 Feb 56.

1. Z urologického oddelení fakultní nemocnice v Praze II (predn. doc. dr. V. Paces) a z parasitol. ustavu biologické fakulty KU (predn. prof. dr. O. Jirovec)

(TRICHOMONIASIS

vaginalis infect. of male urogenital system (Cz))

(UROGENITAL SYSTEM, infect.

caused by Trichomona vaginalis in males (Cz))

JIRA, Jindrich; ROSSLER, Josef; SVEJCAR, Jan

Further considerations on male genital trichomoniasis.
Cas. lek. cesk. 94 no.46:1233-1239 11 Nov 55.

1. Z parazitologickeho ustavu biologicke fakulty (predn. prof.
dr. O. Jirovec). Z urologickeho oddeleni lekarske fakulty
(predn. doc. Dr. V. Paces) Karlovy university a z bakteriologicke
laboratore UVN v Praze.

(URETHRA, diseases,
trichomoniasis in males.)

(TRICHOMONIASIS,
urethra in male.)

URBAN, Antonin (Praha - Brevnov, Belohorska 144); ROSSLER, Kamil (Zbraslav,
Schneinerova 75)

Lever mechanism for handling casks. Energetika Cz 13 no.6:340
Je '63.

1. Montovane stavby, n.p., Praha 1, Revolucni 15.

LISA, L.; ROSSLER, M.; HEYROVSKY, A.

Improvement in Wilson's disease in a 17-year-old girl with continuous penicillamine therapy. Cesk pediat. 19 no.10: 908-911 O '64.

1. I detska klinika fakulty detskeho lekarstvi Karlovy university v Praze, (prednosta prof. dr. J. Svejcar, DrSc.) a Vyzkumna laborator angiologicka CSAV v Praze, (vedouci prof. dr. B. Prusik [deceased]).

LESNY, I.; ROSSLER, M.; H EKOVA, V.

The development of electroencephalographic changes in the epileptic focus in childhood. Cesk. neurol. 28 no.3:172-176
Ap '65

1. EEG laboratore neurologické kliniky fakulty všeobecného lékařství Karlovy University v Praze (prednosta: akademik K. Henner); EEG laboratore I. detské kliniky fakulty detského lékařství Karlovy University v Praze (prednosta: prof. dr. J. Svejcar) a EEG laboratore Krajského ústavu národního zdraví Středočeského kraje v Praze.

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ACC NR: AP6005705

SOURCE CODE: CZ/0082/65/000/003/0172/0176

AUTHOR: Lesny, I.; Rossler, M.; Hrbkova, V.

ORG: EEG Laboratories, Neurological Clinic, Faculty of General Medicine;
Charles University, Prague (EEG laboratore neurologicke kliniky fakulty vseobecneho
lekarstvi KU); EEG Laboratories, First Pediatric Clinic, Faculty of Pediatrics,
Charles University, Prague (EEG laboratore I. detske kliniky fakulty detskeho
lekarstvi KU); EEG Laboratories KUNZ, Central Bohemia, Prague (EEG laboratore
KUNZ Stredoceskeho kraje)

TITLE: Development of electroencephalographic changes in the epileptic focus in
childhood

SOURCE: Ceskoslovenska neurologie, no. 3, 1965, 172-176

TOPIC TAGS: electroencephalography, pediatrics, morphology

ABSTRACT: 315 children of different ages were investigated; the focus changes from
the occipital to the temporal and frontal region with increasing age. The greatest
number of parietal foci was found in the middle age group 7 to 10. The same rule
applies to the morphological types of waves in the epileptic focus. The spectrum
also changes with age from slow waves to faster activity. Orig. art. has: 3
figures and 3 tables. [JPRS]

SUB CODE: 06 / SUEM DATE: none / ORIG REF: 003 / OTH REF: 004

Card 1/1

HW

ROSSLER, M., MUDr; RASKA, B., MUDr

Danger in use of febrosolvin suppositories in pediatrics. Cesk.
pediat. 10 no.1:13-20 Feb 55.

1. Z I. detske kliniky; predn. prof. Dr. Svejcar.

(AMINOPYRINE, injurious effects

in ther. of fever in inf. & child., with 8-hydroxyquinoline-
sulfonic acid)

(QUINOLINES, injurious effects

8-hydroxyquinclinesulfonic acid with aminopyrine in ther.
of fever in inf. & child)

ROSSLER M. MUDr.

Vegetative fits; a variant of epilepsy. Cesk. pediat. 12 no.
5-6:440-446 May-June 57.

1. Detska klinika, prednosta prof. Dr. Josef Svejcar.
(EPILEPSY, in inf. & child
autonomic (Cz))

ROSSLER, M.

Lead poisoning in infants. Pediat. listy 6 no.3:146-149
May-June 1951. (CINL 20:11)

1. Of the First Children's Clinic of Prof. Svejcar, M.D..

CZECHOSLOVAKIA

I. LERNY and M. ROSSLER, Electrobiological Laboratory of the Neurology Clinic of the Faculty of General Medicine (Electrobiologické laborator neurologické kliniky fakulty všeobecného lékařství) Head (prednosta) Academician K. HEJNER; and First Pediatric Clinic of the Faculty of Pediatrics (I. dětská klinika fakulty dětského lékařství) Head Prof Dr J. SVEJCAR; Charles University (KO [Karlova Univerzita],) Prague.

"Premature Electroencephalogram."

Prague, Ceskoslovenska Neurologie, Vol 26(59), No 1, Jan 59; pp 50-56.

Abstract [English summary modified]: EEGs of an adult type were found in 4 boys aged 10, 15, 17 and 58 months; all had a delayed development of the central nervous system and 3 also had hypotonic infantile cerebral palsy. Four case reports with 4 EEGs; no references.

ROSSLER, M.; DITTRICHOVA, J.

Relations of sleep activity in the central nervous system to respiration and some behavior mechanisms in infants. Cesk. pediat. 17 no.12:1065-1070 D '62.

1. I detska klinika fakulty detskeho lekarstvi Karlovy university v Praze, prednosta prof. dr. J. Svejcar Ustav pro peci o matku a dite v Praze, reditel doc. dr. M. Vojta, vedouci pediatr. useku doc. dr. K. Polacek.

(ELECTROENCEPHALOGRAPHY) (SLEEP) (BEHAVIORISM)

POKORNA, M.; HNATEK, J.; LACKOVA, E.; ROSSLER, M.

Subsepsis allergica Wissler-Fanconi. Cesk.pediat.16 no.1:32-39
Ja '61.

1. I. detska klinika v Praze, prednosta prof. MUDr. J. Svejcar.
(ALLERGY in inf & child)
(RHEUMATISM in inf & child)

POKORNA, M.; ROSSLER, M.

Lymphadenopathy following triantoin in audiogenic epilepsy. Cesk.
pediat. 17 no.4:354-358 Ap '62.

1. I detska klinika, prednosta prof. MUDr. J. Svejcar.

(HYDANTOINS toxicol) (EPILEPSY ther)
(LYMPHATIC SYSTEM dis)

HRBKOVA, V.; ROSSLER, M.

Use of pharmacological and light stimulation in healthy children with unusual EEG findings after hyperventilation. Cesk. pediat. 18 no.4:343-350 Ap '63.

1. Katedra nemocnicni pediatrie fakulty detskeho lekarstvi KU v Praze, vedouci prof. dr. J. Svejcar.

(ELECTROENCEPHALOGRAPHY) (LIGHT)
(CHLORPROMAZINE) (PHYSOSTIGMINE)
(HYPERVENTILATION)

LESNY, I.; ROSSLER, M.

Premature electroencephalogram. Cesk. neprol. 26 no.1:50-54 Ja '63.

1. Elektrobiologické laboratorie neurologické kliniky fakulty všeobecného
lékarství KU v Praze, přednosta akademik K. Henner I. dětská klinika
fakulty dětského lékařství KU v Praze, přednosta prof. dr J. Svejcar.
(ELECTROENCEPHALOGRAPHY) (CEREBRAL PALSY)
(INFANT PREMATURE DISEASES)

LESNY, I.; ROSSLER, M.

Premature electroencephalogram. Cesk. neuropol. 26 no.1:50-54 Ja '63.

1. Elektrobiologické laboratorie neurologické kliniky fakulty všeobecného
lékarství KU v Praze, přednosta akademik K. Henner I. dětská klinika
fakulty dětského lékařství KU v Praze, přednosta prof. dr J. Svejcar.
(ELECTROENCEPHALOGRAPHY) (CEREBRAL PALSY)
(INFANT PREMATURE DISEASES)

ROSSLER, Miroslav

Aggravation of convulsive disorders after chlorpromazine therapy.
Cesk. pediat. 16 no.7/8:663-666 J1-Ag '61.

1. I detska klinika, prednosta prof. dr. J. Svejcar.

(CONVULSIONS therapy)
(CHLORPROMAZINE toxicology)

EXCERPTA MEDICA Sec. 7 Vol. 9/7 July 55
 RÜSSLER M.

1573. RÜSSLER M. and POLÁČEK E. *Hyperpyretický syndrom. The hyperpyrexia syndrome PEDIAT. LISTY 1954, 9/3 (130-135) Graphs 3 Tables 7

The authors reviewed 108 cases of hyperpyrexia in infants, who developed a temperature of more than 41.5° C. and also those with only 40° C. if the course of their illness was similar. The incidence of hyperpyrexia was higher in the early spring and late autumn, coinciding with the higher rate of upper respiratory infections. The prognosis was poor, the mortality rate being 76%. Death often followed after a very short illness. Most of the cases had a short prodromal stage: cough, rhinitis, dyspnoea, vomiting, diarrhoea, frequently also convulsions or coma. The findings after the onset of the hyperpyrexia were generally: disturbance of consciousness, convulsions, cyanosis, upper and lower respiratory infections, enlargement of liver and peripheral circulatory collapse. Post mortem inflammatory changes were found mostly in the lungs, bronchi, intestines, and often degeneration of cells in the cortex and basal ganglia of the brain. However, on a number of occasions the autopsy findings were more or less negative. The authors are aware of the probability of multiple aetiological factors as a cause of hyperpyrexia, and that it may be a peculiarity of the infantile reaction to certain noxious agents, but because of its bad prognostic significance, advocate its classification as a separate syndrome.

Holzel - Manchester

EXCERPTA MEDICA Sec.7 Volo/6 Pediatrics June 56

1273. RÖSSLER M. and RAŠKA B. *Nebezpečí febrosolvinových čípků v dětském věku. The risk of the use of antipyretic suppositories in children PEDIAT. LISTY 1955, 10/1 (13-20) Tables 1

This article is concerned with the unexpected death of young children after administration of pyramidon suppositories to abate fever. Causes of these fatal complications may be the small difference between therapeutically active and toxic doses of pyramidon and the possibility of confusing children's suppositories (with 0.1 g. per suppository) with those for adults (containing 0.6 to 1.0 g.), the infants receiving a dose of 20 times higher than the therapeutically active one. In some cases pyramidon poisoning is masked by the original, possibly common disease, the overdose of antipyretic substance giving rise to the death of the weakened patient. Prohibition of the manufacture of suppositories with more than 100 mg. pyramidon is proposed. A survey is given of the present-day knowledge of the effect of pyramidon poisoning in animals, of the clinical symptoms of such poisoning in man and of the autopsy findings.

Rössler - Prague

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ROSSLER, Miroslav; RASKA, Blazej

Effect of temperature on cerebral function in infants and adult and young rabbits. Cesk. pediat. 14 no.3:230-235 5 Mar 59.

1. I. detska klinika KU v Praze, prednosta prof. dr. J. Svejcar.

(ELECTROENCEPHALOGRAPHY,

eff. of temperature in inf. & adult & young rabbits (Cz))

(TEMPERATURE, effects,

on EEG in inf. & adult & young rabbits (Cz))

ROSSLER, Miroslav

Aggravation of convulsive disorders after chlorpromazine therapy.
Cesk. pediat. 16 no.7/8:663-666 J1-Ag '61.

1. I detska klinika, prednosta prof. dr. J. Svejcar.

(CONVULSIONS therapy)
(CHLORPROMAZINE toxicology)

GUTVIRTH, Jaroslav, MUDr.; ROSSLER, Miroslav, MUDr.

Recurrent abdominal pain in children. Cesk. pediat. 11 no.7:
476-484 July 56.

1. Z I. detske kliniky v Praze. Predn. prof. MUDr. Josef Svejcar.
(ABDOMEN, diseases,
pain in child., recur. (Cz))

ROSSLER, Miroslav, Dr.; POLACEK, Emil, Dr.

Hyperpiretic syndrome. Pediat. listy, Praha 9 no.3:130-135
May-June 54.

1. Z I detske kliniky; prednosta prof. Dr. J.Svejcar
(FEVER, in infant and child
malignant hyperpyrexia)

ROSSLER, Miroslav

Electroencephalography in healthy mature and premature newborn infants.
Acta univ. carol. [Med] no.2:181-194 '61.

1. I detska klinika fakulty detskeho lekarstvi University Karlovy
prednosta prof. MUDr. J. Svejcar.

(ELECTROENCEPHALOGRAPHY in inf & child)
(INFANT PREMATURE physiol) (INFANT NEWBORN physiol)

ROSSLER, S.

- (27)
- Prague, Collection of Czechoslovak Chemical Communications, Vol. 27, No. 4, April 1964, (continued)
37. "Oxidative Decarboxylation of Trivalent Cerium Salts with Peroxide", J. HOLZMAN, B. ROZICKY and J. ZIMA of the Institute for Analytical Chemistry at Charles University, Prague; pp 1031-1033.
 38. "Organic Quantitative Analysis. Part XXII. The Micro Determination of Carbon in Organic Substances by Means of Measuring the Electric Conductivity and by Using CO_2 as a Combustion Catalyst," M. VZ-CEKAL, J. LADKIN and L. LEVAY of the Research Institute for Organic Syntheses, Pardubice-Bolevo; pp 1033-1037.
 39. "Methods of Separating Natural Substances. Part V. The Determination of Norkin in Extracts from Poppy Shells," P. HORAK, J. HOLZMAN, V. SUDRA and Z. COXAR, Research Institute for Natural Drugs, Prague; pp 1037-1042.
 40. "Spectrophotometric Determination of Heparin with the Modified Gomel and Recluse Method," J. ZEMEK of the Identification Station at the [Medical] Faculty in Brno; pp 1043-1045.
 41. "Gas-Fluid Chromatography. The Relation between the Desired Elution Volume and the Relative Retention of Organic Compounds," L. N. YAKOVLEV, Chair of Organic Technology at the Chemical-Technological Institute in Prague; pp 1045-1048.
 42. "Therapeutic Use of an Unidentified Component of Wood Acetone. Part II. Determination of the Ratios of the Isomers of Coproporphyrin I and III, Following Paper-Chromatographic Separation," V. HOLZMAN, Institute for Work Hygiene and Occupational Diseases, Prague; pp 1049-1053.
 43. "Folic Acid Compounds and Their Analogues. Part XVII. Reaction of the Acid and of Its Azas Analogues with Ethylene Carbonate," M. FROSTAS and J. ZIM, Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague; pp 1054-1056 (English article).
 44. "Synthesis of β -Dosexy-uridin," J. SUD, Department of Organic Syntheses at the Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague; pp 1056-1058.
 45. "Plant Substances. Part XIII. Genueridin, the Bitter Principle of *Thymus vulgaris* L.," M. SUDER, Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague; pp 1059-1060 (English article).

ROSSLEROVA, Olga; NERUDA, Oto; VONDRACEK, Vojtech

Investigation of calcium metabolism with the use of Strontium
85. Sborn. ved. prac. lek. fak. Karlov. Univ. 7 no.5:717-726
'64.

1. II. interni klinika (prednosta: prof. MUDr. V. Jurkovic,
DrSc.); Katedra radiobiologie (prednosta: MUDr. J. Mraz, CSc.).